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| APPLICATION NO.                         | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------|----------------------|---------------------|------------------|
| 10/003,525                              | 12/06/2001     | Jacques Albert       | 12313-US 5691       |                  |
| 23553 7                                 | 590 03/13/2003 |                      |                     |                  |
| MARKS & C                               | LERK           | EXAMINER             |                     |                  |
| P.O. BOX 957<br>STATION B<br>OTTAWA, ON | I VID 597      | SONG, SARAH U        |                     |                  |
| CANADA                                  | KIF 337        |                      | ART UNIT            | PAPER NUMBER     |
|   |                |                      | 2874                |                  |
| DATE MAILED: 03/                        |                |                      |                     | 3                |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |   | 1                       |                         | E  | 10   |  |  |  |
|---|---|-------------------------|-------------------------|--|------|--|--|--|
|   | •   | Application             | n No.                   | plicant(s)                                   |      |  |  |  |
| Office Action Summary   |   | 10/003,52               | 5                       | ALBERT, JACQU                                | JES  |  |  |  |
|   |   | Examiner                |                         | Art Unit                                     |      |  |  |  |
|   |   | Sarah Sor               | <u> </u>                | 2874   |      |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply   |   |                         |                         |  |      |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |   |                         |                         |  |      |  |  |  |
| 1)  | Responsive to communication(s) filed on   |                         |                         |  |      |  |  |  |
| 2a)[  | This action is <b>FINAL</b> . 2b)⊠ Thi  | is action is            | non-final.              |  |      |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |   |                         |                         |  |      |  |  |  |
| Disposition of Claims   |   |                         |                         |  |      |  |  |  |
| •   | Claim(s) 1-18 is/are pending in the application.  |                         |                         |  |      |  |  |  |
|   | 4a) Of the above claim(s) is/are withdrawn from consideration.  |                         |                         |  |      |  |  |  |
|   | Claim(s) is/are allowed.  |                         |                         |  |      |  |  |  |
|   | ☑ Claim(s) <u>1-18</u> is/are rejected.<br>☑ Claim(s) is/are objected to.   |                         |                         |  |      |  |  |  |
| ·   | •   | r election re           | equirement              |  |      |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  Application Papers   |   |                         |                         |  |      |  |  |  |
| 9) The specification is objected to by the Examiner.  |   |                         |                         |  |      |  |  |  |
| 10)🛛 .  | The drawing(s) filed on <u>04 November 2002</u> is/aı   | re: a)⊠ acc             | epted or b)⊡ objected t | o by the Examin                              | er.  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |                         |                         |  |      |  |  |  |
| 11) 🔲 .   | The proposed drawing correction filed on  | _is: a)□ a <sub>l</sub> | oproved b)□ disappro    | ved by the Exami                             | ner. |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |   |                         |                         |  |      |  |  |  |
| 12)☐ The oath or declaration is objected to by the Examiner.  |   |                         |                         |  |      |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |   |                         |                         |  |      |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |   |                         |                         |  |      |  |  |  |
| a) All b) Some * c) None of:  |   |                         |                         |  |      |  |  |  |
|   | 1. Certified copies of the priority documents have been received.   |                         |                         |  |      |  |  |  |
|   | 2. Certified copies of the priority documents have been received in Application No  |                         |                         |  |      |  |  |  |
| * 5   | <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |                         |                         |  |      |  |  |  |
| 14) 🗌 A   | 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                         |                         |  |      |  |  |  |
| a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.   |   |                         |                         |  |      |  |  |  |
| Attachment(s)   |   |                         |                         |  |      |  |  |  |
| 1) Notic  | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (PTO-948)<br>nation Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2.</u>   | <b>3</b> .              |                         | r (PTO-413) Paper N<br>Patent Application (P |      |  |  |  |
|   |   |                         |                         |  |      |  |  |  |

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#### **DETAILED ACTION**

### **Drawings**

1. This application has been filed with two (2) sheets of drawings, which have been approved by the Examiner.

# Information Disclosure Statement

2. The prior art documents submitted by the applicant in the Information Disclosure Statement filed on December 16, 2001 and March 8, 2002 have all been considered and made of record (note the attached copy of form PTO-1449).

## Claim Objections

3. Claims 1, 4, 5, 8, 12 and 15-18 and 12 is objected to because of the following informalities: regarding claim 1, in line 2, change "ot" to -of--; regarding claim 4, 5, 15 and 16, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention (see MPEP § 2173.05(d)); regarding claim 12, it is not clear as to what is meant by the securing means "being adjustable longitudinally of said optical fiber", and for purposes of examination, it will be interpreted as "being adjustable lengthwise"; claims 8 and 17 do not end in a period, and for purposes of examination the examiner will assume that the claims are otherwise complete; regarding claim 18, "said at least one closure means" is objected to as lacking proper antecedent basis and will be interpreted as "said at least one securing means" for purposes of examination. Appropriate correction is required.

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### Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 5. Claims 1, 2, 4-7, 12, 13 and 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lachance et al. (U.S. Patent Application Publication 2002/0141700). Lachance et al. disclose a temperature compensating package for an optical fiber device comprising a support structure 13 of a material having a negative CTE [0037]; and securing means 14 and 15 located in the support structure for securing opposed ends of an optical fiber device 11 passing therethrough, at least one of said securing means being of a material having a positive CTE (e.g. brass and aluminum, [0063]) and adjustable lengthwise. Regarding claims 2 and 18, said at least one securing means has a threaded screw portion 15 and a complementary nut portion 19, which are used to fine tune thermal compensation of said optical device [0071]. Regarding claim 6, it is noted that both securing means 14 and 15 are "adjustable lengthwise"; that is both means are able to be moved longitudinally with respect to the tube 13. Regarding claim 7, brass and aluminum have different positive CTE values. Regarding claim 17, said optical fiber device is a fiber grating 12.

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# Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lachance et 7. al. Lachance et al, discussed above, do not specifically disclose a step of adjusting said at least one securing means to establish a base thermal compensation value. Lachance et al. disclose that adjustment of the threaded element 15 results in an axial movement and thus provides thermal compensation of the device [0070]. Lachance et al. further disclose a fine-tuning step utilizing the locking nut 19 [0071]. One of ordinary skill in the art would have understood the adjustment of the threaded element as being substantially equivalent to the step of establishing a base thermal compensation value, and the adjustment of the locking nut as being substantially equivalent to a step of fine tuning the base thermal compensation value achieved by the adjustment of the threaded element. Therefore, the step, although not specifically disclosed, would have been obvious to one having ordinary skill in the art as being equivalent to the step of adjusting the threaded element as taught by Lachance et al. Regarding claim 11, although the negative CTE is not specifically disclose as being in excess of that which is required, the limitation would have been obvious to one having ordinary skill in the art to provide a device and method for thermal compensation that would have been effective over the full range of temperatures associated with the device.

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8. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lachance et al. as applied to claims 1 and 13, respectively above, and further in view of Beall et

al. (U.S. Patent 6,490,394). Lachance et al. disclose glass ceramics as suitable support materials

[0009], but do not specifically disclose an alumino-silicate glass ceramic. Beall et al. disclose

alumino-silicate glass ceramics as a material having a negative CTE suitable for use in thermal

compensation packages for optical fiber devices (column 2, lines 16-67) due to its mechanical

stability over a wide temperature range. One of ordinary skill in the art would have found it

obvious to modify the Lachance et al. disclosure to comprise an alumino-silicate glass ceramic

for the support material to provide reliable compensation over a wide temperature range, as

taught by Beall et al.

Conclusion

9. Any inquiry concerning the merits of this communication should be directed to Examiner

Sarah Song at telephone number 703-306-5799. Any inquiry of a general or clerical nature, or

relating to the status of this application or proceeding should be directed to the receptionist at

telephone number 703-308-0956 or to the technical support staff supervisor at telephone number

703-308-3072.

Surah W. Sneg

March 10, 2003

Rodney Bovernick Supervisory Patent Exeminor Page 5

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